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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,475

07/14/2004

Stephen M Angood

120298

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25944

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03/23/2006

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EXAMINER

ROGERS, DAVID A

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H-A

Office Action Summary	Application No.	Applicant(s)	
	10/501,475	ANGOOD ET AL.	
	Examiner	Art Unit	
	David A. Rogers	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-56 is/are pending in the application.
- 4a) Of the above claim(s) 40-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040714</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (claims 32-39) in their reply filed on 21 February 2006 is acknowledged. The traversal is on the ground(s) that restriction must be made in view of the PCT rules. This is not found persuasive because of the following:

a. PCT rules for unity of invention were followed as noted in the restriction requirement.

b. The section of the MPEP that the applicant quotes, that being MPEP §1850, states that under Rule 13, process claims and product claims can be included in the application as long as the product was specially designed for carrying out the process and vice versa. In the instant application there are no process claims. Therefore, the independent apparatus claims are each reviewed relative to each other. Per Rules 13.1 and 13.2 the independent claims do not share a common technical feature as noted in the restriction requirement.

The requirement is still deemed proper and is therefore made FINAL. Claims 40-56 are hereby withdrawn from further consideration.

Drawings

2. The drawings are objected to because of the following informality. In figures 6A and 6B the reference item numbers 70 and 72 are directed to the

wrong parts. Reference item 70 is the damper, and reference item 72 is the lever. See, for example, figures 6C and 6D.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

- a. The specification is missing the appropriate section headings; e.g.,
Background of the Invention, Summary of the Invention, Brief
Description of the Drawings; Description of the Preferred Embodiments.
- b. On page 19, line 8 the term "Fig 6C" should be --Fig 6D--; on line 10
the term "fig 6D" should be --Fig 6C--; and on line 20 the term "rod 88"
should be --rod 89--.
- c. On page 21, line 10 the term "perspective" should be --isometric--.

Appropriate correction is required.

Claim Objections

4. Claims 32-39 are objected to because of the following informality. The
specification, drawings, and title all refer to the alignment of optical
components of an optical measuring machine. However, the claims have no
mention of any optical component or any optical machine. Furthermore, claim
32 states that the device is a measuring system for calibrating a machine.
However, the limitations suggest that the device is for aligning and not for
calibrating. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and
distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being
indefinite for failing to particularly point out and distinctly claim the subject
matter which applicant regards as the invention. Claim 39 recites the

limitation "the angle" on line 1. There is insufficient antecedent basis for this limitation in the claim; i.e., the claim does not state what angle is adjustable, and claim 32 makes no reference to any base angle.

7. Claims 37 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 37 and 38 each recite "the housing mounted on a moving part of the machine". Since both housings are mounted to the machine it is unclear which housing the term "the housing" is referring to.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 32-36 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by the admitted prior art.

The admitted prior art as shown in figure 1 comprises a first housing (reference item 20) and a second housing (reference item 22). The first housing is attached to a base of a machine (reference item 10), and the second housing

is attached to another surface of the machine (reference item 40). The first and second housings are coupled together using a kinematic seat (reference item 18) having complementary surfaces (balls and v-grooves) and are urged together using magnets (reference item 33). The first housing is coupled to the base together using a kinematic seat (reference item 16) having complementary surfaces (balls and v-grooves). The first and second housings are coupled so that they are mutually aligned. Since the first housing and second housing can be moved on the bottom kinematic seat (reference item 16) independently of any movement of the other kinematic seat (reference item 18). Therefore, the first and second housings may be aligned in any direction without realignment of the second housing relative to the first housing.

With regard to claims 34 and 35 the second housing is attached to the second surface of the machine (reference item 34) via a connector in the form of a ball (reference item 36) and retainer (reference item 40). The ball allows the retainer to rotate thus allowing the second housing to be attached to the machine at several directions. This connection can be done independently of any movement of the first housing relative to the second housing or the base.

With regard to claim 36 the second housing and the first housing respective axes that aligned at a common point (common point being, for example, the point where the reflector axis intercepts the light detector axis).

10. Claim 32 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by United States Patent 6,047,612 to McMurtry.

McMurtry discloses an apparatus comprising a first housing (reference item 14) and a second housing (reference item 16). The first housing is attached to a base member (reference item 12), and the base member will be attached to a machine. The second housing is attached to a second surface of a machine in the form of an extension bar (reference item 20).

The first housing couples to the base member using air bearings, but this can also be a kinematic support; e.g., ball races. See column 4, lines 1-8. The kinematic support requires complementary surfaces on the respecting housings. Furthermore, the second housing is also coupled to the first housing using a kinematic support. The kinematic support requires complementary surfaces on the respecting housings.

McMurtry discloses that the first housing (reference item 14) can be positioned about an axis (reference item D) without realignment of the second housing (reference item 16) relative to the first housing.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over McMurtry as applied to claim 32, and further in view of Lloyd *et al.*

McMurtry teaches the alignment of 2 housings. McMurtry does not teach a second housing being urged toward the first housing using magnets.

Lloyd *et al.* teaches an machine having a second housing being aligned relative to a first housing using kinematic supports. The apparatus further comprises a magnet (reference item 30) and plate (reference item 32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of McMurtry with the teachings of Lloyd *et al.* to provide a magnet for urging the second housing towards the first housing. The magnet would inherently assist in holding the second housing against the first housing, and the magnetic poles define a precise axis through which the second housing can be aligned with the first housing.


Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (571) 272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


17 March 2006


HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
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